

AMENDMENTS TO THE CLAIMS

1-10. (Canceled)

11. (Currently amended) A method for forming a resist pattern using a lithography process comprising the steps of:

applying a chemically amplified positive resist composition to a substrate to provide form a resist film;

conducting selective exposure of said resist film;

performing post exposure baking (PEB); and then

conducting alkali developing, wherein

line and space patterns are ~~first~~ formed at a plurality of preliminary PEB temperatures using said lithography process, ~~a relationship between~~ wherein a peak-shaped graph is formed when a size of a space pattern formed and a preliminary PEB temperature at which said size is formed is plotted in a graph with size of said formed space pattern is plotted on a graph along a vertical axis, and said a preliminary PEB temperature is plotted along a horizontal axis, wherein a preliminary PEB temperature corresponding ~~with~~ to a point at which said size reaches a maximum value in said graph is set as an optimum PEB temperature, and a PEB temperature within said lithography process is set to a temperature within $\pm 2^{\circ}$ C of said optimum PEB temperature.

12. (Canceled)

13. (Previously presented) A method for forming a resist pattern according to claim 11, wherein said chemically amplified positive resist composition is a positive resist composition, comprising:

a base resin component (A), which contains acid dissociable, dissolution inhibiting groups and exhibits increased alkali solubility under action of acid; and

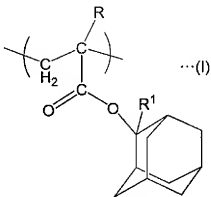
an acid generator component (B) that generates acid on irradiation, wherein

said component (A) is a copolymer comprising structural units (a-1), which are derived from an (α -lower alkyl) acrylate ester that contains an acid dissociable, dissolution inhibiting group, and also contains an aliphatic cyclic group, structural units (a-2), which are derived from an (α -lower alkyl) acrylate ester that contain a γ -butyrolactone residue, and structural units (a-3), which are derived from an (α -lower alkyl) acrylate ester that contains a hydroxyl group-containing aliphatic polycyclic hydrocarbon group, and a glass transition temperature (T_g) of said copolymer is within a range from 100 to 170° C.

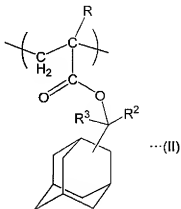
14. **(Previously presented)** A method for forming a resist pattern according to claim 13, wherein a weight average molecular weight of said component (A) is within a range from 4,000 to 8,000.

15. **(Previously presented)** A method for forming a resist pattern according to claim 13, wherein said acid dissociable, dissolution inhibiting group is a tertiary alkyl group.

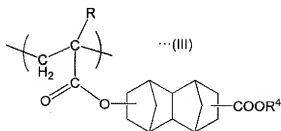
16. **(Previously presented)** A method for forming a resist pattern according to claim 13, wherein said structural unit (a-1) is one or more units selected from the group consisting of structural units represented by general formulas (I), (II), and (III) shown below:



(wherein, R represents a hydrogen atom or a lower alkyl group, and R¹ represents a lower alkyl group),

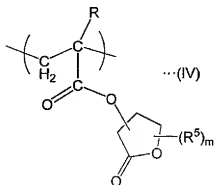


(wherein, R represents a hydrogen atom or a lower alkyl group, and R² and R³ each represent, independently, a lower alkyl group),



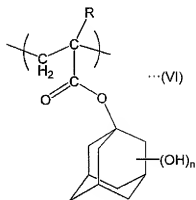
(wherein, R represents a hydrogen atom or a lower alkyl group, and R⁴ represents a tertiary alkyl group).

17. **(Previously presented)** A method for forming a resist pattern according to claim 13, wherein said structural unit (a-2) is one or more units selected from the group consisting of structural units represented by a general formula (IV) shown below:



(wherein, R represents a hydrogen atom or a lower alkyl group, R⁵ represents a hydrogen atom or a lower alkyl group, and m represents an integer from 1 to 4).

18. **(Previously presented)** A method for forming a resist pattern according to claim 13, wherein said structural unit (a-3) is one or more units selected from the group consisting of structural units represented by a general formula (VI) shown below:



(wherein, R represents a hydrogen atom or a lower alkyl group, and n represents an integer from 1 to 3).

19. **(Previously presented)** A method for forming a resist pattern according to claim 13, wherein a proportion of said structural unit (a-1) relative to a combined total of all structural units of said component (A) is within a range from 20 to 60 mol %.

20. **(Previously presented)** A method for forming a resist pattern according to claim 13, wherein a proportion of said structural unit (a-2) relative to a combined total of all structural units of said component (A) is within a range from 20 to 60 mol %.

21. **(Previously presented)** A method for forming a resist pattern according to claim 13, wherein a proportion of said structural unit (a-3) relative to a combined total of all structural units of said component (A) is within a range from 1 to 30 mol %.

22. **(Previously presented)** A method for forming a resist pattern according to claim 13, wherein said positive resist composition further comprising: a nitrogen-containing organic compound (D) in a quantity equivalent to 0.01 to 5% by weight relative to said component (A).